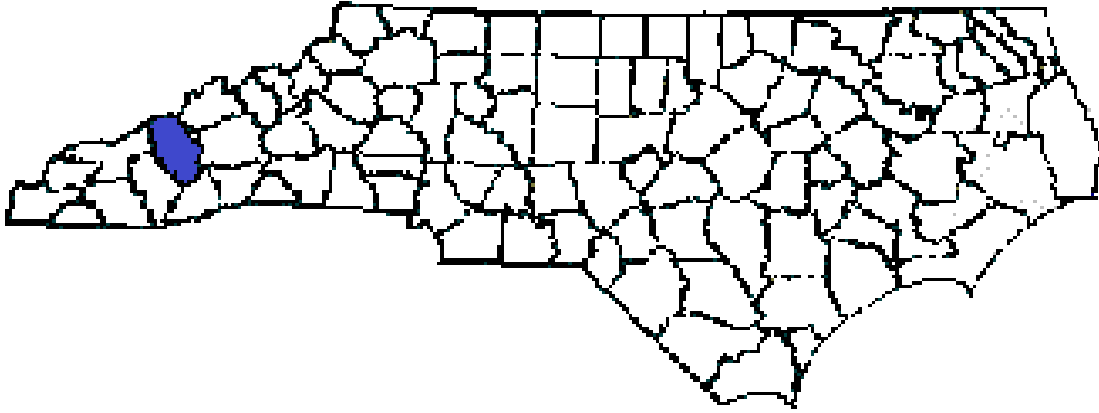
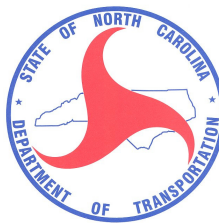


# ANNUAL REPORT FOR 2015



**West Fork Pigeon River Site  
Haywood County  
TIP No. B-3187  
Biological Opinion**



Prepared By:  
Natural Environment Section & Roadside Environmental Unit  
North Carolina Department of Transportation  
July 2015

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## **SUMMARY**

The West Fork Pigeon River Site is located in Haywood County. The site was planted in January 2013 per the conditions stated within the Biological Opinion.

Locations where the riparian area is disturbed shall be re-vegetated with native woody species. Riparian plantings will be monitored annually for a period of 5 years after planting. If there is less than a 75 percent survival rate then the riparian area will be replanted.

After the third year of monitoring, the West Fork Pigeon River Site revealed an average tree density of 595 trees per acre. This average is above the 75 percent survival rate (510 trees per acre) required by the Biological Opinion.

NCDOT proposes to continue monitoring the planted vegetation at the West Fork Pigeon River Site in 2016.

## **1.0 INTRODUCTION**

### **1.1 Project Description**

The West Fork Pigeon River Site is located at Bridge No. 79 over West Fork Pigeon River on SR 1112 (Chambers Farm Rd) (Figure 1). The site consists of riparian plantings that will be monitored annually for a period of 5 years after planting to ensure that no less than 75 percent survival is achieved.

### **1.2 Purpose**

In order for this site to be considered successful, the site must meet the success criteria. This report details the monitoring in 2015 at the West Fork Pigeon River Site.

### **1.3 Project History**

January 2013	Site Planted
August 2013	Vegetation Monitoring (Year 1)
July 2014	Vegetation Monitoring (Year 2)
July 2015	Vegetation Monitoring (Year 3)

## 2.0 VEGETATION: WEST FORK PIGEON RIVER SITE (YEAR 3 MONITORING)

### 2.1 Success Criteria

Per the Biological Opinion, the riparian plantings will be monitored annually for a period of 5 years after planting. If less than 75 percent survival then, the riparian area will be replanted.

### 2.2 Description of Species

The following tree species were planted in the Riparian Area:

*Platanus occidentalis*, American Sycamore

*Liriodendron tulipifera*, Yellow Poplar

*Fraxinus pennsylvanica*, Green Ash

*Quercus rubra*, Northern Red Oak

### 2.3 Results of Vegetation Monitoring

Plot #	American Sycamore	Yellow Poplar	Green Ash	Northern Red Oak	Total (Year 3)	Total (at planting)	Density (Trees/Acre)
1	7	8	15	5	35	40	595
Year 3 Average Density							595
Year 2 Average Density							595
Year 1 Average Density							595

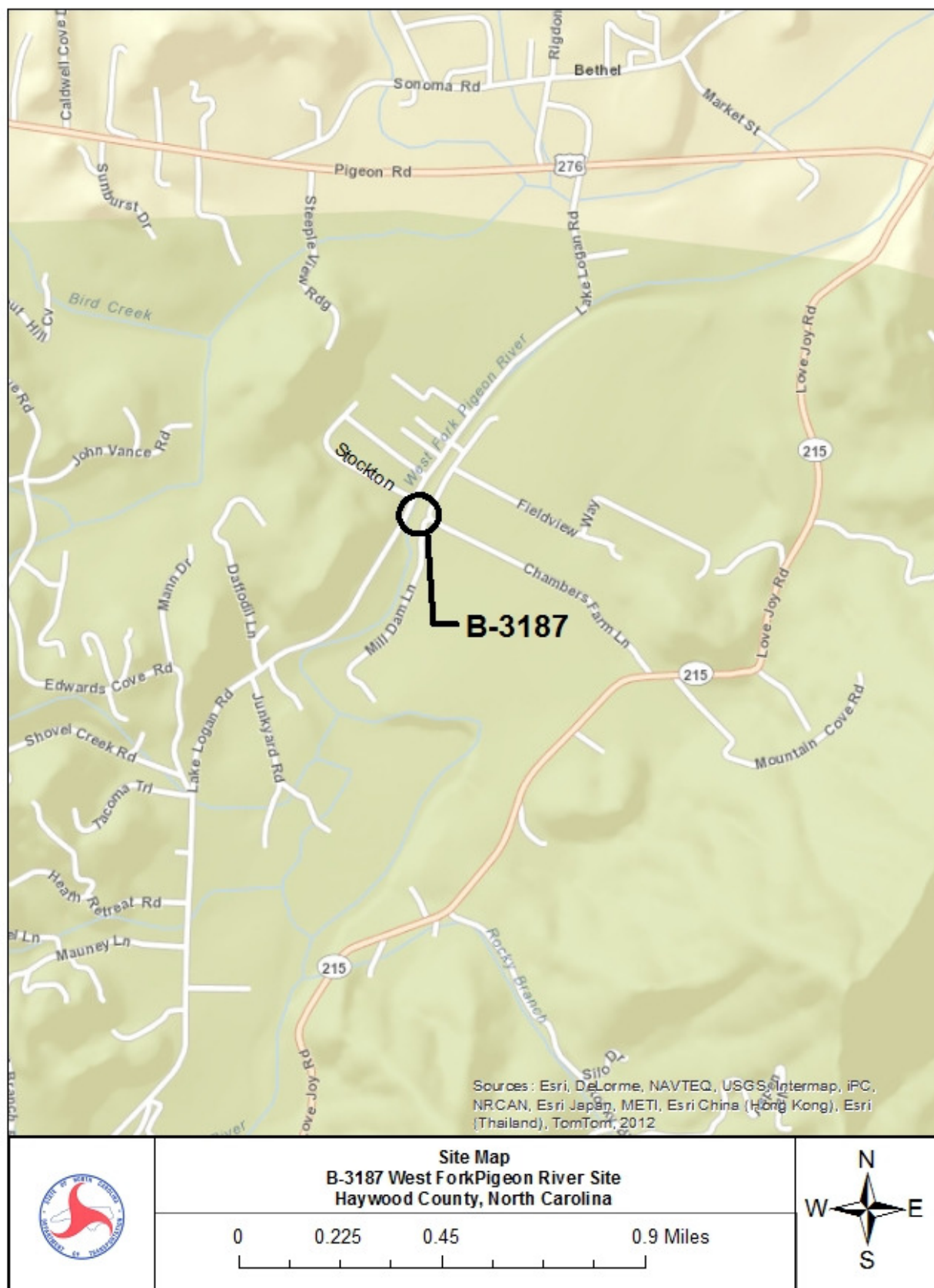
**Site Notes:** It was brought to NCDOT's attention that a small portion of the planted trees along Lake Logan Road were mowed by an adjacent landowner. Since this has occurred, the landowner has been made aware of the planted trees and additional markers and signs have been installed. It was noted during the monitoring evaluation that the mowed trees had begun to re-sprout, therefore NCDOT is not proposing any additional planting at this time.

## **2.4 Conclusions**

After the third year of monitoring, the 2015 vegetation monitoring of the site revealed an average density of 595 trees per acre. This average is above the minimum success of 510 trees per acre (75% survival).

## **3.0 OVERALL CONCLUSIONS AND RECOMMENDATIONS**

NCDOT proposes to continue vegetation monitoring at the West Fork Pigeon River Site in 2016.



**Figure 1. Site Location Map**

**APPENDIX A**

**SITE PHOTOS**



# West Fork Pigeon River Site



Photo Point #1



Photo Point #2



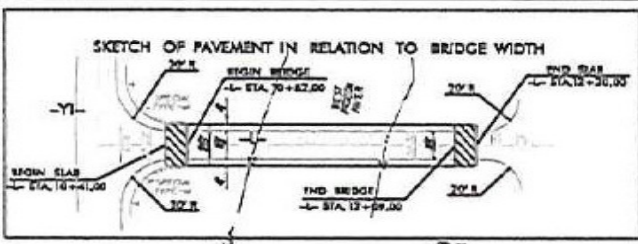
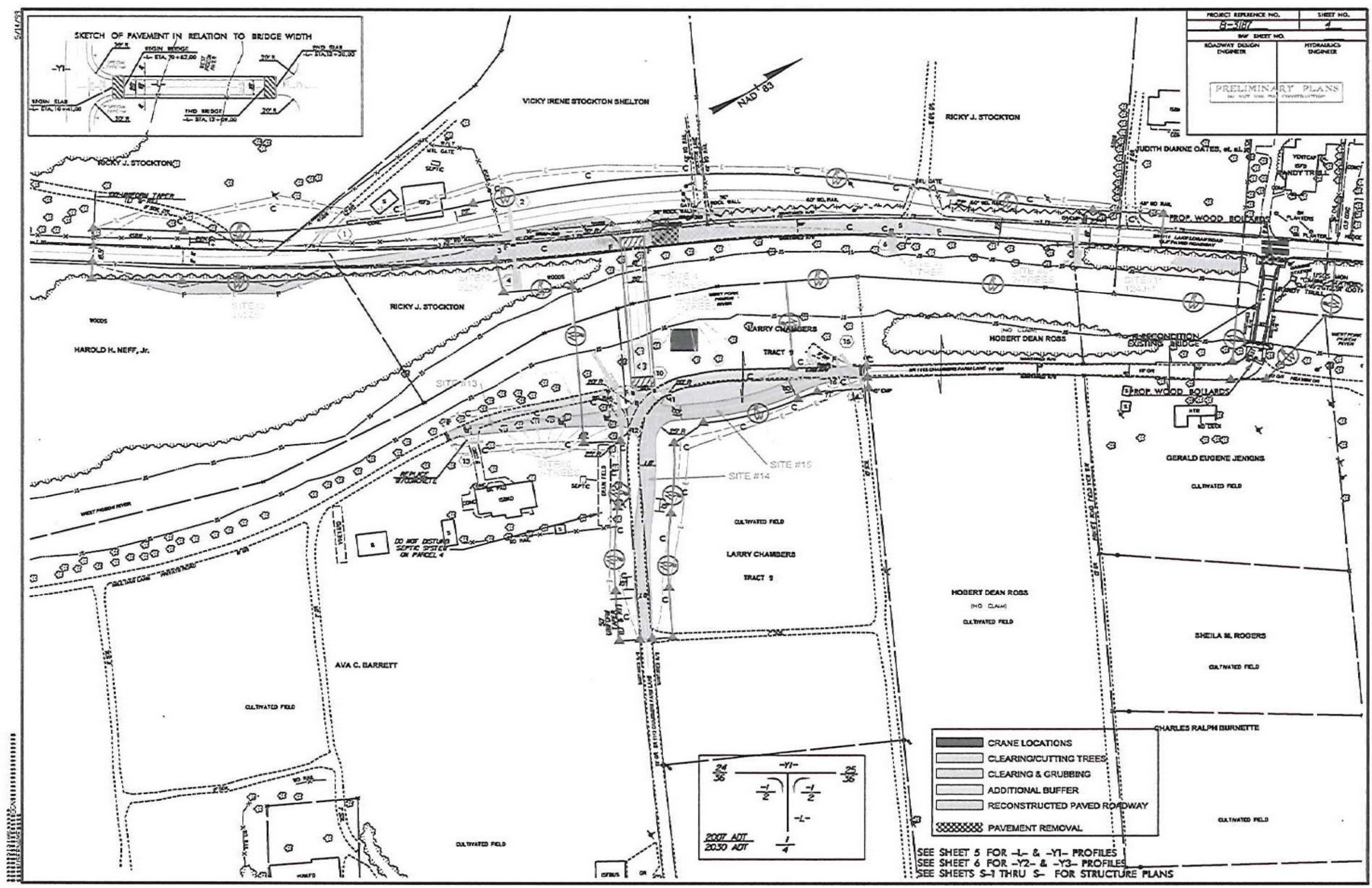
Photo Point #3

July 2015

**APPENDIX B**

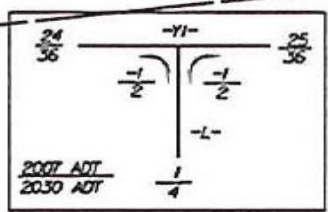
**PLAN SHEETS**





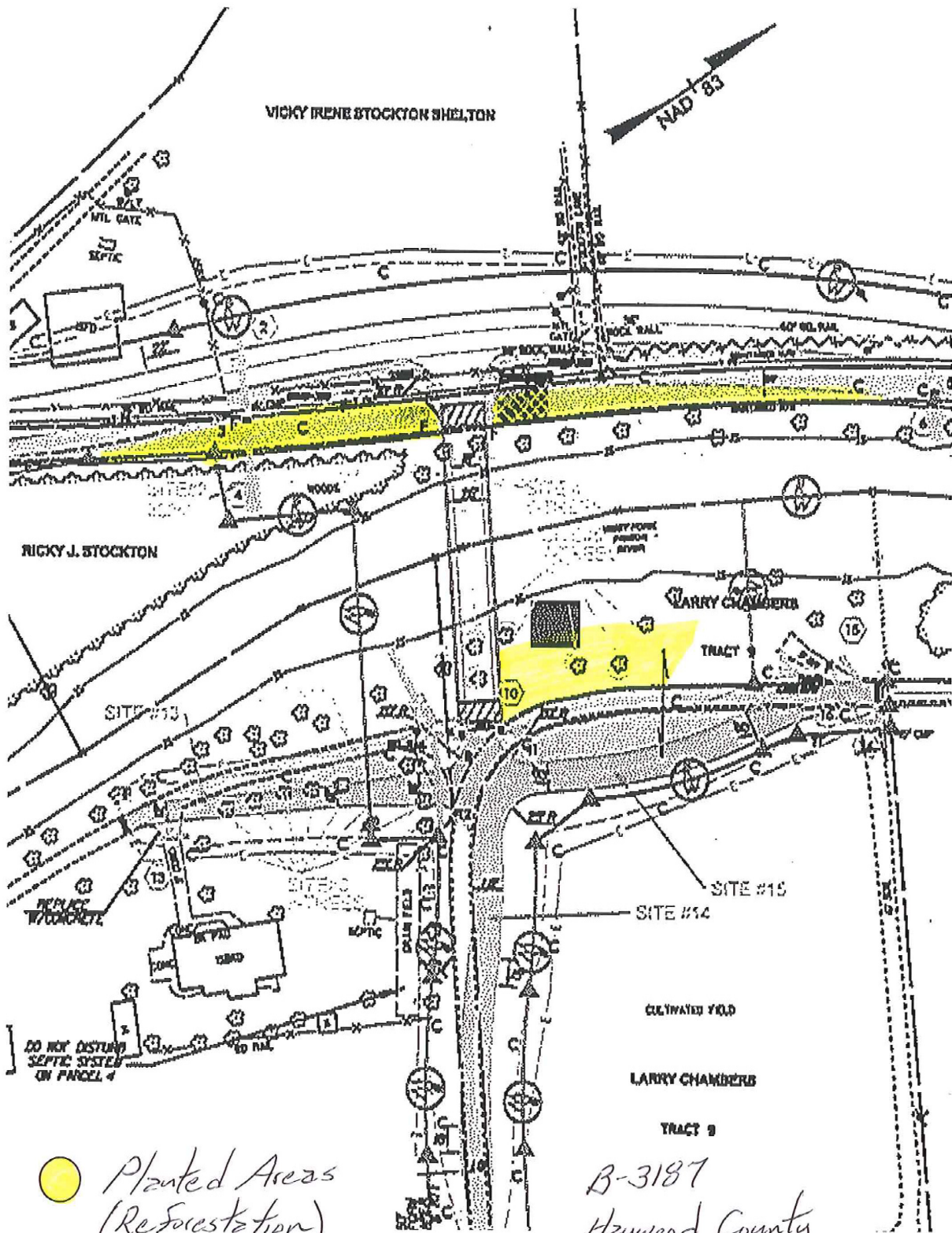
PROJECT REFERENCE NO.	SHEET NO.
H-3187	4
BY SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS	
DO NOT USE FOR CONSTRUCTION	

- CRANE LOCATIONS
- CLEARING/CUTTING TREES
- CLEARING & GRUBBING
- ADDITIONAL BUFFER
- RECONSTRUCTED PAVED ROADWAY
- PAVEMENT REMOVAL



SEE SHEET 5 FOR -L- & -Y1- PROFILES  
SEE SHEET 6 FOR -Y2- & -Y3- PROFILES  
SEE SHEETS S-1 THRU S- FOR STRUCTURE PLANS





*Planted Areas  
(Reforestation)*

*B-3187  
Haywood County*